CLAIMS

1. A stapling device for a surgical endoscopic device provided with at least one flexible portion, comprising a staple-firing portion and an anvil portion, wherein one of said staple firing portions and one of said anvil portions are located longitudinally displaced from one another along the longitudinal axis of said endoscopic device, with at least a part of said flexible portion between them.

2. A device according to claim 1, wherein the parts of the stapling device are in correct working relationship when one or more alignment and/or locking members that are stored in one of the staple firing portions or one of the anvil portions are extended and engage and lock into receptacles that have been provided on the other of said staple firing portion or of said anvil portion.

3. A device according to claim 2, wherein the alignment and/or locking members comprise one or more screws.

4. A device according to claim 2, wherein the alignment and/or locking members comprise one or more pins.

5. A device according to any one of claims 2 to 4, wherein the alignment and/or locking members can be extended and retracted from the portion of the stapling device in which they are stored.

6. A device according to claim 4, wherein a dual rack and single pinion system is employed to provide the motion of the alignment and/or locking pins.

7. A device according to claim 3, wherein a gear system actuated by rotation of a screw drive cable is employed to provide the motion of the screws.

8. A device according to claim 2, wherein the alignment and/or locking members can be locked in and released from the receptacles that are provided in the portion of the stapling device.

9. A device according to claim 4, wherein two alignment and/or locking pins are provided.

10. A device according to claim 3, wherein two screws are provided.

11. A device according to claim 4, wherein the alignment and/or locking pins are stored in the anvil portion.

12. A device according to claim 3, wherein the screws are stored in the anvil portion.

13. A device according to claim 1, wherein one of the staple firing portions or of the anvil portions is located proximately to the proximal end of the flexible portion and the other of said staple firing portions or of said anvil portions is located proximately to the distal end of said flexible portion.

14. A device according to claim 13, wherein the staple firing portion is located proximately to the proximal end of the flexible portion and the anvil portion is located on the distal tip of said flexible portion.

15. A device according to claim 1, wherein one of the staple firing portions or of the anvil portions is located on the flexible portion of the endoscope and the other of said staple firing portions or of said anvil portions is located proximately to the distal end of said flexible portion.

16. A device according to claim 1, wherein one of the staple firing portions and one of the anvil portions are located on the flexible portion.

17. A device according to any one of claims 1 to 16, wherein the flexible portion is an articulation section.

18. A device according to claim 17, wherein the articulation section is a two-way articulation section.

19. A device according to claim 17, wherein the articulation section is a four-way articulation section.

20. A device according to claim 17, wherein activation of the articulation section causes the parts of the stapling device to be brought into correct working relationship.

21. A device according to claim 1, wherein a positioning assembly comprising two separate elements, one of which is located near the staple ejecting portion, and the other near the anvil portion is provided to assist in bringing the parts of the stapling device into correct working relationship.

22. A device according to claim 21, wherein the elements of the positioning device are an ultrasound transducer and receiver.

23. A device according to claim 21, wherein the elements of the positioning device are an ultrasound transducer/receiver and a reflector.

24. A device according to claim 21, wherein one of the elements of the positioning device is a device that is capable of generating light, radio frequency or piezoelectric signals, or a magnetic field and the other of the elements of said positioning device is a device that is capable of detecting light, radio frequency or piezoelectric signals, or a magnetic field.

25. A device according to claim 1, wherein the staple firing portion contains a staple cartridge containing one or more arrays of staples, each array consisting of one or more staples.

26. A device according to claim 25, wherein the arrays of staples are fired by staple pushers actuated by cams actuable by proximal means.

27. A device according to claim 25, wherein the staple cartridge is indexable after the firing of each of the arrays of staples by the action of a proximal actuating device.

28. A device according to claim 25 and claim 27, wherein the staple cartridge contains windows for assisting in locking the staple cartridge in position after indexing.

29. A device according to claim 25, wherein the number of the arrays of staples is three and the number of staples in each of said arrays is five.

30. A device according to claim 25, wherein the number of the arrays of staples is two and the number of staples in each of said arrays is five.

31. A device according to claim 25, wherein the staples of each array are arranged in three rows with the pinholes aligned with the middle row.

32. A device according to claim 28, wherein the number of windows in the staple cartridge is six.

33. A device according to claim 28, wherein the number of windows in the staple cartridge is four.

34. A device according to claim 1, comprising safety means for disabling the operation of the staple firing portion when the two separate elements of the stapling device are not aligned.

35. A device according to claim 2, wherein the alignment and/or locking means are manufactured such that they can be broken by the force exerted by unbending the articulation section.

36. An endoscopic device comprising a stapling assembly according to any one of claims 1 to 35.

37. A device according to claim 36, comprising conventional endoscopic devices and accessories.

38. A device according to claim 37, wherein the conventional endoscopic devices and accessories comprise water and/or air supply and/or suction and/or ultrasound.

39. A device according to claim 36, comprising viewing means.

40. A device according to claim 39, wherein the viewing means comprise a video camera.

41. A device according to claim 39, wherein the viewing means comprise illumination apparatus.